ABSTRACT

The hydraulic machine with radial cylinders (3, 4, 5, 6 and 7) comprises pistons (8) with radial stroke, arranged in contact with an outer cam (13) and coplanar with said group of cylinders, each equipped with a roller on the path (12) of said cam, and it has, in each piston (8), a rolling bearing (9, 10, 11), arranged with the inner ring coupled or coinciding with the pin (9) for supporting said roller (10) and the outer ring (10) coupled or coinciding with the roller (10) itself; moreover, it has the roller (10) and the corresponding rolling bearing (9, 10, 11) with a small size such as to also allow, in the alternating motion of the piston (8), introduction steps of said roller in the respective liner of the cylinder (3, 4, 5, 6 and 7). It comprises, in a further embodiment, in each piston (21), an anti-friction ferrule (23) placed in contact with the pin (22) or with an inter-positioned and coupled support element (25) for said roller (20); said ferrule being coupled with the inner diameter of the roller (20) itself. Finally, in a more complete embodiment, it comprises both the static and dynamic O-rings each consisting of a metal ring (28, 31) mounted with interference in the coupling on the sealing diameter (D) and housed in a throat (29, 36) with slight axial clearance.